Kentucky Education Technology System

Proxy Hardware
Recommendation Guide

This document assists in determining proper sizing and configuration for hardware needed for a variety of proxy service installations. These guidelines are recommendations only, and consideration must be given to special circumstances which may pertain to a specific site. Listed are the minimum recommendations, which will provide operation of proxy services. Using dedicated proxy service hardware, configured for optimal performance, and running independent of other services will allow for the fastest and most reliable service. Considerations should be made for growth to the network and increased Internet usage within the schools when determining hardware configurations for proxy services.

Considerations should also be given to Local Area Network design configuration and location of units providing proxy services. Local network traffic may be increased on any network segments which contain proxy services. Consultation on network design and planning may be required as activity increases on LANs due to increased usage.

Any additional information required beyond this document about configuring or sizing hardware should be addressed with your KETS Regional Engineer or a local service provider qualified and experienced with the KETS Proxy Project and design.

<u>Small Installation</u>

A small installation is recognized as any one school, campus, or location with 1 to 100 workstations.

     <u>Minimum recommended hardware for proxy services only:</u>

486DX2/66
64MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
1GB Partition dedicated to the Proxy Cache (IDE or SCSI)

     <u>Minimum recommended hardware for proxy services and hosting a web site:</u>

Pentium 90
96MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
1GB Partition dedicated to the Proxy Cache (IDE or SCSI)

     <u>Minimum recommended hardware for proxy services and file & print sharing:</u>

Pentium 166
128MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
1GB Partition dedicated to the Proxy Cache (IDE or SCSI)

     <u>Minimum recommended hardware for Proxy Services and Exchange Services:</u>

Pentium II 350
256MB of RAM
1GB Partition dedicated to the Operating System (SCSI)
1GB Partition dedicated to the Proxy Cache (SCSI)

<u>Medium Installation</u>
A medium installation is recognized as any one school, campus, or location with 101 to 400 workstations.

<u>Minimum recommended hardware for proxy services only:</u>

Pentium 90
64MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
3GB Partition dedicated to the Proxy Cache (IDE or SCSI)

<u>Minimum recommended hardware for proxy services and hosting a web site:</u>

Pentium 133
128MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
3GB Partition dedicated to the Proxy Cache (IDE or SCSI)

<u>Minimum recommended hardware for proxy services and file and print sharing:</u>

Pentium 166
256MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
3GB Partition dedicated to the Proxy Cache (IDE or SCSI)

<u>Minimum recommended hardware for proxy services and Exchange Services:</u>

Pentium II 350
384MB of RAM
1GB Partition dedicated to the Operating System (IDE or SCSI)
3GB Partition dedicated to the Proxy Cache (SCSI & RAID)

Large Installation

A large installation is recognized as any one school, campus, or location with 401 or more workstations.

   <u>Minimum recommended hardware for proxy services only:</u>

Pentium II 266
128MB of RAM
1GB Partition dedicated to the Operating System (SCSI)
4GB Partition dedicated to the Proxy Cache (SCSI)

   <u>Minimum recommended hardware for proxy services and hosting a web site:</u>

Dual Pentium II 300
256MB of RAM
1GB Partition dedicated to the Operating System (SCSI)
4GB Partition dedicated to the Proxy Cache (SCSI)

   <u>Minimum recommended hardware for proxy services and file and print sharing:</u>

Dual Pentium II 333
512MB of RAM
1GB Partition dedicated to the Operating System (SCSI)
4GB Partition dedicated to the Proxy Cache (SCSI)

   <u>Minimum recommended hardware for proxy services and Exchange Services:</u>

Dual Pentium II 350
512MB of RAM
1GB Partition dedicated to the Operating System (SCSI)
4GB Partition dedicated to the Proxy Cache (SCSI & RAID)

District Node Installation

Sizing the district node proxy is difficult as it depends greatly on how many schools are within a district, and how much traffic is being generated. As a general rule, having twice the amount of RAM and twice the amount of cache dedicated to the proxy as compared to your largest school is a good choice, however, the following would be the minimum configuration if this is not attainable:

Pentium 133
128MB RAM
1GB Partition dedicated to the Operating System (SCSI)
4GB Partition dedicated to the Proxy Cache (SCSI)

If a district has a particularly large number of schools, or the schools in a district are creating a lot of traffic, consideration should be made for putting a proxy array in place at the district node. A proxy array is a group of proxy machines which act as one proxy service. Many benefits are gained from this approach such as fault tolerance, performance, and scalability. Any districts with more then 30 sites should consider this configuration. Any districts with less number of sites, however producing high Internet access, may also want to consider this configuration. This design is beyond the scope of this document and should be addressed with the KETS Regional Engineer and the KETS Proxy Team.

Other Hardware Considerations

Please note that the recommendations made in this document pertain to proxy service installations only, and consideration must be given to the hardware required if proxy is being ran with another service on the same machine. Sizing the hardware for other services is beyond the scope of this document and should be addressed with your KETS Regional Engineer or the KETS Help Desk.

Special consideration should be taken when sizing the cache space required for proxy services.

- a 486 class machine should not have a cache size over 2GB

- a Pentium class machine should not have a cache size over 6GB

- a Pentium Pro class machine should not have a cache size over 8GB

- a Pentium II class machine should not have a cache size over 12GB

- a Pentium II XEON class machine should not have a cache size over 18GB.

If the Proxy Service requires a cache size over any of these numbers, a proxy array should be taken into consideration as stated above.